U.S. Department of the Interior
Bureau of Land Management
White River Field Office
73544 Hwy 64
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2005-110-EA

CASEFILE/PROJECT NUMBER (optional): COC68630

PROJECT NAME: Cow Creek Road

LEGAL DESCRIPTION:

Sixth Principal Meridian, Colorado
T. 4 S., R. 94 W.,
Sec. 33, E½SW¼SE¼, SE¼SE¼;
Sec. 34, NE¼NE¼SW¼, S½N½SW¼, S½SW¼, W½SE¼, SE¼SE¼.

T. 4 S., R. 95 W.,
Sec. 1, W½E½ (i.e. Lot 2, SW¼NE¼, W½SE¼)
Sec. 12, W½NE¼, SE¼NE¼, E½SE¼;
Sec. 13, E½NE¼, N½SE¼, SW¼SE¼;
Sec. 24, N½SW¼;
Sec. 36, W½E½, E½SW¼.

APPLICANT: Williams Production RMT Company

ISSUES AND CONCERNS (optional): Internal scoping has revealed concerns over the increased traffic on the Navel Oil Shale Reserve No. 1 (NOSR 1) right-of-way in regards to increased dust, possible watershed issues, fish, plants, border areas, and the wilderness characteristics of the land further south along the rim of the Roan Plateau.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: The Cow Creek Road (BLM Road No. 1002) has historically been one of two main access routes to the Roan Plateau from Piceance Creek Road (Rio Blanco County Road 5). Along with Sprague Gulch Road (BLM Road No. 1005), Cow Creek provides access to the Divide Road (BLM Road No. 1000), which runs along the Roan Plateau, and, at its eastern end, provides access to the Naval Oil Shale Reserve (NOSR) along the Roan Cliffs (the "Rim Road" or BLM Road No. 8000).

In 1965 the Game, Fish and Parks Commission of the State of Colorado acquired a perpetual, 60-foot wide easement "for access by the public" on the Cow Creek Road over the following described privately owned lands:

Sixth Principal Meridian, Colorado

T. 4 S., R. 95 W.,
Sec. 1, W½NE¼;
Sec. 24, N½SW¼;
Sec. 36, W½E½, SW¼NW¼, SW¼.

A 1976 Solicitor's Opinion indicated that based on the language in the body of the document, the BLM, its licensees, and the general public could use the road for purposes other than just hunting and fishing. Correspondence from the Division of Wildlife, in 1985 indicated that the State of Colorado Attorney General's Office issued an opinion that same year which indicates the road is solely under the control of the Division of Wildlife, acting on behalf of the Wildlife Commission, for any and all public access uses. It went on to say that commercial uses of the road could only be granted at the Commission's pleasure. In 1989 the State of Colorado conveyed all right, title, and interest in this easement to the United States (COC45417). The consideration for conveyance of this easement was ongoing maintenance of the road by the BLM.

In 1976, BLM developed a route analysis for access to the Navel Oil Shale Reserve (NOSR) and surrounding area. This analysis recommended upgrading the Cow Creek Road, and development of the "Navy Ridge Road" from the intersection of the Sprague Gulch and Divide Roads, to the vicinity of Anvil Points, following the existing Divide and Rim Roads. However, this plan never came to fruition.

In August of 1988, based on their plans to access the Mobil 1-19 well on private mineral leases in the vicinity of Anvil Points, Barrett Energy Company, predecessor in interest to Williams Production RMT Company, (hereafter Williams) applied for a right-of-way to authorize their use of the public land segments of the Cow Creek Road and a small public land segment of the Divide Road., for access to the NOSR. From there, they proposed to utilize the Rim Road to the leased lands. Right-of-way COC48500 was granted to Barrett in September of 1988. In June of 1989, the Department of Energy granted Barrett a right-of-way to use their segment of the Divide Road and the Rim Road, along the Roan Cliffs. While right-of-way COC48500 expired in 1994, the right-of-way across the NOSR remains in effect.

Over the years, the Cow Creek Road has had various road failures, primarily as a result of peak stream flows. A 400-foot road segment has been under-cut by Cow Creek with periodic sloughing of material from the road that has gradually reduced the drivable road surface. The relatively narrow easement width and steep hillside at this site restrict the potential to move the road away from the failing section beyond a few feet. Two low water crossings within the project area have also periodically succumbed to peak flows. Emergency road funds typically are requested and allocated to hire equipment and repair damage that occurs during the high flows.

A formal BLM construction project with planned improvements to the Cow Creek Road was submitted to the BLM Washington Office in 1998. The project included the construction of engineered structures within the 60-foot wide road easement referenced above that would improve public safety for travelers. The proposed project, when submitted in 1998, called for construction of two creek crossings to mitigate vehicle impacts associated with low water crossings, and the installation of wall structures to protect the road from stream erosion. All resource clearances related to repairing and improving the initial two miles were completed.

Implementation of this project was analyzed in 2003 in a dual office environmental assessment (EA); co-140-2003-083ea /co-wrfo-03-031-ea. It was scheduled for spring, 2004 with the actual installation of walls and/or bridge abutments delayed to avoid high stream flows during the spring months. To date the bridge across Piceance Creek has been the only repair completed with no available funds to finish the project.

Proposed Action: The proposed action is the issuance of a right-of-way, to Williams, across the public land segments of the Cow Creek Road, including the segments crossing those private lands encumbered by the easement noted above (COC45417). The applied for route would provide access to roads crossing the NOSR 1 on which Williams holds a right-of-way. This right-of-way was issued by the Department of Energy prior to the BLM assuming management responsibilities. The right-of-way under consideration would be approximately 32,400 feet long (26,200 feet on public lands, 6200 feet on private lands) by 40 feet wide. The right-of-way would comprise approximately 29.8 acres, most of which is previously disturbed. The applicant would utilize these roads to gain access to private oil and gas leases in the vicinity of Anvil Points.

Williams plans on drilling four wells in 2005, and up to 5 additional wells in 2006. Additional wells, including wells on federal oil/gas lease COC62163, could be drilled at a later date. Water for use in drilling and completion operations will be obtained from private sources on lease. Estimated number of trucks used for drilling and completion operations for a maximum of four wells is 822 loads broken down into 528 highway loads and 294 permit loads. Dust abatement would take place as necessary, utilizing water and/or "Dust Stop," a biodegradable, non-hazardous, non-toxic material made from starch-based organic matter.

The road would be bladed and maintained to have a 12-foot running surface (roughly the current average width) with 2-foot shoulders. Road repairs would take place as necessary: "blowouts where headcutting is occurring into the roadway would be repaired and stabilized, and low water crossings would be rip-rapped.

Use of the Cow Creek Road would lead to the use of the Rim Road. Authorizing the use of the Rim Road is beyond the scope of this assessment: said use was approved in 1989 by the Department of Energy,

No Action Alternative: Under the no action alternative, the application would be denied. Williams would be required to seek permission to use or construct an access route entirely across private property, presumably from Garfield County Road 215 along Parachute Creek.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None

NEED FOR THE ACTION: Williams is the holder of existing Federal and private oil and gas leases in the vicinity of Anvil Points. The two main routes to the road over which Williams holds existing access rights to these properties (i.e. the Rim Road) are the Cow Creek Road, and the JQS Trail. The JQS Trail is not considered suitable for vehicles the size of those contemplated in oil and gas related developments, and Williams has applied for a right-of-way to use the Cow Creek Road. They have received permission to cross the private land segments not encumbered by the easement acquired from the Division of Wildlife.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: 2-49 thru 2-52

Decision Language: "To make public lands available for the siting of public and private facilities through the issuance of applicable land use authorizations, in a manner that provides for reasonable protection of other resource values."

The proposed action is in conformance with the White River ROD/RMP. The NOSR lands crossed by the Rim Road are within the area referred to as the Roan Plateau Planning Area, which is the subject of a Draft Resource Management Plan Amendment and Environmental Impact Statement (November, 2004). Use of right-of-way COC63149 would not be inconsistent with any of the alternatives being considered in that document.

REVIEW OF EXISTING NEPA DOCUMENTS:

List by name and date all existing NEPA documents that cover the Proposed Action.

Name of Document: CO-140-2002-0083-EA / CO-WRFO-03-031-EA

Date Approved: 6/18/03

Decision Number/Page: 8

Decision Language: "This action will improve public access to public lands in the area, and greatly improve safety for public users of this road."

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: The proposed right-of-way (ROW) is located approximately 25 miles west of the Flattops Wilderness Area (Class 1 Air-shed). No other special designation air sheds or non-attainment areas are situated within that 25 mile radius.

Environmental Consequences of the Proposed Action: The proposed action will have little affect on air quality in the area with exception to dry periods when human disturbance increases fugitive dust levels. Exhaust associated with periods of heavy traffic will also contribute to temporary reductions in local air quality. However, the proposed action should not greatly compromise National Ambient Air Quality Standards (NAAQS) on a daily or hourly basis. Air quality in the Flattops Wilderness will not be adversely affected by the proposed ROW.

Environmental Consequences of the No Action Alternative: None

Mitigation: The operator will be responsible for complying with all local, state, and federal air quality regulations as well as providing documentation to the BLM that they have done so. To minimize production of fugitive dust, vehicle speeds must not exceed 15 mph. In addition, the application of a dust suppressant (e.g. water or "Dust Stop") will be required during dry periods. If soils associated with road repair or upgrading are stockpiled, they must be covered.

CULTURAL RESOURCES

Affected Environment: Inventory along the proposed route only exists in Township 4 South, section 3 (Newkirk and Roper, 1982), Township 4 South, Range 95 West, Section 36 (Conner 1990, Compliance Dated 6/15/1990, Conner 1998, Compliance Dated 11/30/1998) and Township 5 South, Range 94 West, Section 4 N½NW¼ (University of Colorado, Boulder 1973) with no cultural resources identified in any of the areas of the road that were inventoried. There are presently no known cultural resources along the proposed road route.

Environmental Consequences of the Proposed Action: The proposed action does not impact any known resources at this time. However, due to lack of inventory data there is no guarantee that unknown resources are not being impacted. Further, should it become necessary to upgrade or reroute portions of the road for safety there is no guarantee that resources will not be impacted unless inventory of the proposed reroute area is evaluated for resources.

Environmental Consequences of the No Action Alternative: No new or additional impacts to cultural resources, should any exist outside the inventoried areas, under the No Action Alternative. However, currently occurring impacts from current use will continue as before.

Mitigation: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

3. Any realignment or upgrading of the road outside of current disturbance or those areas with recent inventory data (Note: University of Colorado (CU) data is not considered adequate data) must be inventoried by an approved consulting archaeologist and a report detailing the results of the inventory must be submitted to and approved by the BLM prior to any construction work on BLM administered lands.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The bureau has been working to control noxious weeds found in the project area. Weeds currently being controlled include, yellow toadflax, houndstongue, musk thistle, bull thistle, Canada thistle, burdock, horehound, and mullein. Control efforts have been successful with decreases in the extent of the above species. Yellow toadflax continues to be difficult to control.

Environmental Consequences of the Proposed Action: Authorizing a right-of-way for this road supposes that commercial use will increase as will maintenance of the road surface and borrow ditches. Increased use and maintenance would increase the opportunity for transporting noxious weeds into this area and also to maintain disturbed soil conditions along the road which would be suitable habitat for noxious weeds. There is the likelihood that yellow toadflax seed generated above the road would be transported off-site, establishing this noxious weed in other areas. If the permit holder controls noxious weeds within the right-of- way there would be a decrease in the chance of noxious weeds establishing on the right of way or being transported off-site.

Environmental Consequences of the No Action Alternative: There would be no change in the current situation, with the bureau retaining the responsibility for weed management along this corridor.

Mitigation: The permit holder is responsible for maintaining the current conditions within their right-of-way by annual control of noxious weeds. Use of herbicides will be in accordance with the label and be approved by the authorized officer.

MIGRATORY BIRDS

Affected Environment: Migratory bird habitat influenced by the proposed action includes basin big sagebrush and a narrow corridor of mature narrowleaf cottonwood in the Cow Creek valley and a predominantly mixed sagebrush/deciduous shrub community on the opposing hillslope, mixed shrub at the lower end of West Branch, and a predominant mountain big sagebrush type across the Colorado-White River divide. A number of migratory birds fulfill nesting functions in these habitats from mid-May through mid-July. The BLM, in cooperation with the Rocky Mountain Bird Observatory, has developed a list of migratory birds of higher conservation interest that are largely representative of specific habitat types on the Colorado Plateau. Those birds relevant to the project area include Brewer's sparrow in the sagebrush types and Virginia's warbler and common poorwill for mixed mountain shrublands. These species, and a host of other species associated with these communities, occupy these landscapes at densities consistent with potential and are widely distributed in Piceance Basin's extensive like-habitats. It is likely that nesting densities in close proximity to the Cow Creek access road are strongly suppressed within 100 feet of the roadbed and adverse influence associated with vehicle activity may extend out to 300 feet.

The Cow Creek road presently receives consistent spring through early winter use and is subject to particularly heavy use during the late August through November big game hunting seasons.

Environmental Consequences of the Proposed Action: Increasing levels and frequency of traffic along the Cow Creek road during the early summer months may be expected to further depress migratory bird nesting density immediately adjacent to the road. However, the overall affect on migratory bird abundance and productivity would presumably be low, since vehicle-activity effects would be incremental to those presently occurring and on-going activity would tend to dissuade site-selection by those species less tolerant of disturbance early in the season.

Environmental Consequences of the No Action Alternative: There would be no action authorized that would have potential to influence migratory bird nesting activity along the Cow Creek access road. Alternative access would result in impacts comparable in nature, but more extensive than the proposed action.

Mitigation: None.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: There are no animals listed, proposed, or candidate to the Endangered Species Act that are known to inhabit or derive important benefit from the project locale. The proposed action has potential to involve 2 BLM sensitive species, the northern goshawk and greater sage-grouse. Although patches of suitable nesting substrate occur throughout the project area as aspen, pinyon-juniper, and Douglas-fir woodlands, the ongoing influence of existing roads precludes any reasonable probability of goshawk nesting in such corridors. In this portion of Piceance Basin, sagebrush steppe communities in ridgeline and basin terrain above 7400 feet represent habitats formerly or currently occupied by greater sage-grouse.

At the present time, there are no known lek sites known east of Story Gulch, but a substantial amount of ostensibly suitable sage-grouse habitat exists from Story Gulch east to Cow Creek. The divide road and virtually all the ridgelines extending north of the divide east of Barnes Ridge bisect continuous, constricted corridors of sage-steppe that are currently unoccupied by sage-grouse. These habitats represent suitable or potentially suitable habitats that may figure prominently in the recovery of the Piceance/Roan Plateau sage-grouse population by allowing a means of compensating lands temporarily, but unavoidably unavailable to grouse from oil and gas development or vegetation succession issues.

Environmental Consequences of the Proposed Action: The proposed access corridor traverses about 1.7 miles of sage-steppe habitats that are presently unoccupied by sage-grouse and are not associated with any known historic lek site. The increasing volume, duration, and frequency of traffic along this route, particularly during the initial drilling phases, would adversely affect the potential utility of these habitats. However, considering anticipated and designed increases in largely unregulated recreation use (see discussion in Terrestrial Wildlife

section), it is unlikely that the long-term use patterns attributable to conditioned oil and gas development would contribute significantly to overall declines in habitat utility.

Environmental Consequences of the No Action Alternative: This alternative would authorize no specific action that would influence special status species or their habitat. However, in the event alternate access options are selected, the only practical alternative for access to the Roan Plateau would appear to be Sprague Gulch. The Sprague Gulch access road bisects about 4.5 linear miles of sage-steppe habitat that lies within 2 miles of the historic Litchliter lek. This lek has remained unoccupied since the Piceance Basin underwent serious declines in its sage-grouse population (1980's), but it is anticipated that with population recovery under directed management, it is likely that sage-grouse would respond to area-specific characteristics that were once attractive for reproductive display and nesting.

This alternative would bypass only that portion of the Cow Creek alternative that does not involve potential sage-grouse habitats (i.e., involves continued use of the divide road). This alternative would entail shunting intensive short-term and lesser long-term energy-related travel across 4.5 linear miles of potential nest and brood habitat and 8.3 linear miles of potential sage-grouse summer-use habitat along the divide east to Cow Creek. There would be no apparent advantage to selecting an alternate access route to the Roan Plateau in the context of sage-grouse or sage-steppe resources.

Mitigation: None.

Finding on the Public Land Health Standard for Threatened & Endangered species: The state of sage-steppe communities in the project area presently meets vegetation-related land health standards, but due to advance vegetation succession, they do not meet the special status animal standard in terms of greater sage-grouse use functions. This situation is considered temporary and reversible, but regardless of alternative, habitat function would be depressed in the short or long-term (or both) with increasing vehicular use. The proposed action, as conditioned, would help move energy-development equipment and personnel as efficiently as possible through lands administered by the White River Field Office, thereby reducing the intensity of road and traffic-related influences on, particularly, sage-grouse resources in Game Management Unit 22, thereby complementing continued meeting of the land health standard. The no-action alternative, while not specifically authorizing any land use, would likely involve the selection of an alternate access route to the Roan Plateau. This presumed route would have no ameliorating effect on current traffic-related influences along that portion of the divide road associated with the Cow Creek road, but would substantially increase traffic across nearly 13 linear miles of Piceance Basin's historic and potential greater sage-grouse habitats—an effect that would, especially in the short term, contribute to the deterioration of landscape-level habitat utility counter to the intent and direction of the land health standard.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action: No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: Surface Water: The proposed ROW is located entirely in the Cow Creek catchment area which is a tributary to Piceance Creek (tributary to the White River). BLM road # 1000 is situated along the drainage divide of the headwaters of the Cow Creek catchment area. At the present time, this portion of the ROW is extensively rutted but not currently producing significant amounts of sediment. One explanation for this is that stock ponds adjacent to the ROW are catching a majority of the sediment.

BLM road # 1002 parallels the lowest 2 miles of Cow Creek before following the West Fork of Cow Creek to private land. The initial two miles of BLM road # 1002 consists of: one prefabricated bridge with concrete abutments (at Piceance Creek crossing), one low water crossing, and ~100' of concrete rip-rap on the east bank of Cow Creek. An onsite evaluation was done to assess the condition of road #1000 and it was confirmed that portions of this road are currently introducing sediment directly into Cow Creek and West Cow Creek.

A gaging station was operated by U.S. Geological Survey (USGS) on Piceance Creek approximately 12 miles downstream of the proposed ROW. Data from that station (based on 25 years of record) indicate a seasonal variation of flow. High flows generally occurred in May, and base flow conditions occurred September through February. Sediment data collected at that station ranged from 6 milligrams per liter (mg/l) to 20,300 mg/l. During base flow conditions the sediment levels were generally below 150 mg/l. Concentrations during high flow were generally in the 5,000 to 7,500 mg/l range. While no flow or water quality data are available for Cow Creek, the flow pattern and sediment concentrations are projected to be similar to that in Piceance Creek.

A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list and the Unified Watershed Assessment was done to see if any water quality concerns have been identified. The State has classified stream segment 16 of the White River Basin as "Use Protected" and further designated as beneficial for the following uses: Warm Aquatic Life 2, Recreation 2, and Agriculture. The antidegredation review requirements in the Antidegredation Rule are not applicable to waters designated use-protected. For those waters, only the protection specified in each reach will apply. For this reach, minimum standards for three parameters have been listed. These parameters are: dissolved oxygen = 5.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 2000/100 ml, and 630/100 ml E. coli. This segment retained its Recreation Class 2 designation after sufficient evidence was received that a Recreation Class 1a use was unattainable.

Ground Water: The proposed ROW should have little effect on ground water. However, a majority of the access road is located in areas of local ground water recharge or near stream banks. In the event of a leak or spill of contaminants during transport, local ground water could be at risk.

Environmental Consequences of the Proposed Action: Following an onsite evaluation, it was determined that increased truck traffic will cause further rutting to develop over portions of the roadway. Rut development will channelize surface water down roadways resulting in intensified head cutting and gully formation at locations water exits the roadway. Stream banks will destabilize in response to increased sediment loads and head cutting.

Water quality issues may also arise if leaks or spills involving environmentally unfriendly substances are allowed to penetrate local water tables or contact surface waters. Field observations reviled that the low water crossing may be an extremely vulnerable point for contaminants (e.g. diesel fuel) to contact surface water. Contaminants having potential to be in direct contact with surface water would be detrimental to water quality as well as the health of riparian communities and wildlife in the downstream reaches. Also the additional traffic across the low water crossing may add sediment to Cow Creek especially during wet and saturated conditions.

Environmental Consequences of the No Action Alternative: Surface water will continue to erode the roadway. However, erosion rates would be much slower and head cuts would be less extensive. No ground water or surface water will be at risk for contamination by hazardous materials being transported to well pads.

Mitigation: The operator will be responsible for complying with all local, state, and federal water quality regulations and provide documentation to the BLM that they have done so.

Portions of BLM road # 1002 must be upgraded in attempts to minimize rutting and stabilize fill slopes introducing sediment to the stream. All upgrades must strictly adhere to “Gold Book” surface operating standards for oil and gas exploration and development. Corrugated Metal Pipes (CMPs) will NOT be used as drainage relief structures on slopes less than 10%. Based on the nature of the affected soils, drain dips will be utilized in place of CMPs in these locations.

Any upgrades or damage to the existing ROW will be upgraded or repaired at the expense of the operator.

Engineered wall structures shall be installed along the eastern bank of Cow Creek at the locations shown in Attachment 1 to protect the road from erosion and undercutting. Riprap shall be placed at the locations also shown in Attachment 1. To ensure stream bank/channel stability, an engineered designed of the low water crossing shall be submitted to this office, approved by the authorized officer and constructed prior to use by heavy trucks.

Special care will be given to stabilizing cut and fill slopes adjacent to stream channels in attempts to minimize sediment loads. Portions of the roadway contacting fragile soils or showing signs of accelerated erosion will be fitted with the appropriate stabilization measures (e.g. silt fences, jute netting, and drain dips). The use of rip-rap adjacent to stream channels for bank stabilization purposes will be used sparingly *or* as appropriate to allow natural channel/bank development and complement channel stability (e.g., avoid adverse changes in channel gradient/sinuosity). Fill slopes will be promptly revegetated with the seed mix #2 to provide long term stabilization.

Finding on the Public Land Health Standard for water quality: Water quality in stream segment 16 currently meets water quality standards set by the state. The proposed ROW will cause increased sediment loads to Cow Creek and Piceance Creek adversely impacting water quality and riparian communities downstream. If proper mitigation measures are followed, adverse environmental impacts can be minimized, and will continue to meet standards.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: The mainstem of Cow Creek is perennial in its upper reaches, but flow typically ceases later in the summer below West Branch. Channel character downstream of the middle reaches varies, but is consistently overwidened and derives nearly all its bank stability from heavy rock armoring. Floodplains in these reaches are undersized, poorly developed, and although there are vestiges of obligate riparian forms, the channel generally supports sparse facultative vegetation that does not effectively capture or retain fines. It is suspected that vegetation expression on these reaches is held in this state from past livestock use throughout the growing season and trampling damage. Over the last 10 years, changes in the intensity and timing of livestock use on the lower end of Cow Creek have allowed considerable regeneration of narrow-leaf cottonwood, but likely because of the heavy cobble substrate and intermittent nature/limited extent of moisture, herbaceous recovery has been slow. It is likely too, that heavy sediment and bed load movement, especially platey shales originating from bank and hillslope erosion, contribute to conditions which suppress herbaceous establishment.

The West Branch of Cow Creek is a diminutive intermittent channel in early seral condition (e.g., brookgrass, Kentucky bluegrass, introduced weeds) that also parallels the Cow Creek access road. Although livestock use and trailing damage have influenced community composition and floodplain development, the channel's proximity to the road and it's fill slopes

contribute considerably to deficiencies in channel morphology (i.e., confinement) and weed proliferation.

Environmental Consequences of the Proposed Action: See discussion in Aquatic Wildlife section. With the sharing of BLM's road maintenance responsibilities, effective slope stabilization at and below the confluence of West Branch and mainstem Cow Creek might be realized in the short term. Persistent sloughing of shale material into the channel at this point would be largely abated, and channel instability associated with excessive sediment deposition and bed movement would decrease—features that would tend to complement channel recovery and riparian development processes.

Environmental Consequences of the No Action Alternative: Although the benefits attending effective road maintenance could be achieved through BLM's programs, changing priorities and shrinking budgets have stalled resolution of key road maintenance problems to date. Although increased industrial use would not be authorized along Cow Creek under this alternative, channel-related effects associated with sediment deposition and channel instability in Cow Creek (including riparian expression) would likely persist for extended periods of time.

Mitigation: Prior to implementation, proponent-proposed slope stabilization and road maintenance plans (see WATER QUALITY, SURFACE AND GROUND section) must be evaluated by White River Field Office staff selected by the Authorized Officer to ensure that the specific work plans are consistent with channel and riparian recovery objectives developed in the White River ROD/RMP and BLM's land health standards. Stabilization/maintenance methods and their application would be subject to the approval of the WRFO Authorized Officer.

Finding on the Public Land Health Standard for riparian systems: At the present time, riparian and channel functions in the Cow Creek drainage are variously in non-functioning and functioning-at-risk categories. The lower intermittent reaches associated with the proposed action are incapable of riparian expression of any consequence, but is in an upward trend and ostensibly meets the land health standard. A livestock grazing permit renewal, that substantially revised the Cow Creek allotment's grazing regimen, was instituted last year and is expected to initiate a prominent upward trend in the development of riparian vegetation and improving channel function allotment-wide. As conditioned, it is possible that a sharing of BLM's road maintenance and improvement responsibilities with an industrial entity would be a more reliable means of effecting stabilization of steep shale slopes that contribute to excessive sediment deposition in lower Cow Creek and would complement continued improvements in channel function and meeting of the land health standard for aquatic communities in the future.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No ACEC's, flood plains, prime and unique farmlands, Wilderness, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no

Native American religious or environmental justice concerns associated with the proposed action.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: The following data is a product of an order III soil survey conducted by the Natural Resource Conservation Service (NRCS). The accompanying tables highlight important soil characteristics. A complete summary of this information can be found at the White River Field Office.

Soils assigned controlled surface use stipulations regarding "fragile soils" (CSU-1) have been mapped through the last 0.1 miles of the first 0.3 miles of BLM road # 1002 in section 1 (T4S, R95W). However, after reviewing a topographic map it was found that this segment is located on a slopes appearing to be less than 35% thus controlled surface use stipulations would not apply.

Fragile soils (CSU-1) are also encountered on two small corners of section 13. At both of these locations the existing access road (BLM # 1002) cuts a slope greater than 35%, thus controlled surface use stipulations would apply.

BLM road #1000 (T4S, R94W, Sections 33, 34) crosses mapped CSU-1 fragile soils through most of section 33 (~0.4 miles) and section 34 (~0.3 miles). After reviewing a topographic map it was found that this portion of road # 1000 runs along a ridge top with slope less than 35% thus controlled surface use stipulations would not apply.

Rio Blanco County soils:

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
36	Glendive fine sandy loam	2-4%	Foothills Swale	2-4	Slow	Slight	>60
56	Northwater loam	5-50%	Aspen Woodlands	<2	Medium	Moderate to very high	40-60
82	Silas loam	0-8%	Mountain Swale	<2	Medium	Slight to moderate	>60
96	Veatch channery loam	12-50%	Loamy Slopes	<2	Medium	Moderate to very high	20-40

36-Glendive fine sandy loam is a deep, well drained soil found along drainage ways and in alluvial valley floors. It formed in alluvium. Areas are long and narrow and are 20 to 150 acres in size. Slope is 2 to 4 percent. Typically, the surface layer is pale brown fine sandy loam 6 inches thick. The underlying material to a depth of 60 inches or more is very pale brown, stratified fine sandy loam that has thin lenses of loamy fine sand to sandy clay loam. The soil is

calcareous throughout. In some areas the surface layer is channery fine sandy loam. Permeability of this Glendive soil is moderately rapid. Available water capacity is moderate. Effective rooting depth is 60 inches or more. Runoff is slow, and the hazard of water erosion is slight. The soil is subject to rare periods of flooding.

56-Northwater loam (5 to 50 percent slopes) is a deep, well drained soil found on mountainsides. It formed in residuum and colluvium derived from sedimentary rock. Areas are long and narrow or irregular in shape and are 40 to 400 acres in size. Typically, the surface is covered with a mat of partially decomposed leaves 2 inches thick. The upper part of the surface layer is grayish brown loam about 4 inches thick, and the lower part is grayish brown loam about 16 inches thick. The upper part of the subsoil is brown loam 5 inches thick, and the lower part is pale brown very channery sandy clay loam 16 inches thick. The substratum is light yellowish brown very channery loam 6 inches thick. Fractured sandstone is at a depth of 47 inches. Depth to sandstone ranges from 40 to 60 inches. Permeability of this Northwater soil is moderate. Available water capacity is moderate. Effective rooting depth is 40 to 60 inches. Runoff is medium, and the hazard of water erosion is moderate to very high.

82-Silas loam (0 to 8 percent slopes) is a deep, well drained soil located on the bottoms of narrow mountain valleys. It formed in mixed alluvium. Areas are long and narrow and are 20 to 100 acres. The native vegetation is mainly grasses and shrubs. Typically, the upper part of the surface layer is dark gray loam about 4 inches thick. The lower part is dark gray loam about 20 inches thick. The underlying material to a depth of 60 inches or more is stratified, dark gray loam and dark gray sandy clay loam. Permeability of this Silas soil is moderate. Available water capacity is high. Effective rooting depth is 60 inches or more. Runoff is medium, and the hazard of water erosion is slight to moderate. A water table is at a depth of 48 to 72 inches in spring and early in summer.

96-Veatch channery loam (12 to 50 percent slopes) is a moderately deep, well drained soil located on mountainsides. It formed in colluvium derived dominantly from sedimentary rock. Areas are irregular in shape and are 20 to 750 acres in size. The native vegetation is mainly brush, shrubs, and grasses. Typically, the surface layer is dark brown channery loam 8 inches thick. The upper 5 inches of the subsoil is dark brown channery loam, and the lower 5 inches is brown channery loam. The underlying material is very pale brown extremely channery light loam 14 inches thick. Sandstone is at a depth of 32 inches. In some areas the surface layer is channery fine sandy loam. Permeability of this Veatch soil is moderate. Available water capacity is moderate. Effective rooting depth is 20 to 40 inches. Runoff is medium, and the hazard of water erosion is moderate to very high.

Garfield County Soils:

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
48	Northwater loam	15-65%	Aspen Woodlands	<2	Slow	Slight	50
53	Parachute-Rhone loams	5-30%	Mountain Loam	<2	Medium	Moderate	~52

*48 -Northwater loam (*15 to 65 percent slopes) is a deep, well drained soil found primarily on steep mountainsides. Elevation ranges from 7,600 to 8,400 feet. This soil formed in residuum

from sedimentary rocks. Typically, the upper part of the surface layer is brown loam about 10 inches thick. In most places 2 inches of organic material is on the surface. The lower part of the surface layer is dark grayish brown loam about 15 inches thick. The subsoil is light brown very channery clay loam about 25 inches thick. Fractured sandstone is at a depth of 50 inches. Permeability is moderate, and available water capacity is moderate. Effective rooting depth is 40 to 60 inches. Surface runoff is slow, and the erosion hazard is slight.

53 -Parachute-Rhone loams (5 to 30 percent slopes) are gently sloping to steep soils found on ridge crests and mountainsides. Elevation ranges from 7,600 to 8,600 feet. The Parachute soil formed in residuum from sandstone or marlstone, and the Rhone soil formed in residuum from hard, fine-grained sandstone. The Parachute soil makes up about 55 percent of the map unit, the Rhone soil makes up about 30 percent, and the soils of minor extent make up 15 percent. The Parachute soil is mostly on ridge crests, and the Rhone soil is in gently sloping to moderately sloping areas on mountainsides. The Parachute soil is moderately deep and well drained. Typically, the surface layer is grayish brown loam about 5 inches thick. The upper part of the subsoil is very dark grayish brown and brown loam about 13 inches thick, and the lower part is light yellowish brown extremely channery loam about 11 inches thick. Hard, fractured sandstone is at a depth of 29 inches. Permeability of the Parachute soil is moderate, and available water capacity is low. Effective rooting depth is 20 to 40 inches. Surface runoff is medium, and the erosion hazard is moderate.

The Rhone soil is deep and well drained. Typically, the upper part of the surface layer is brown loam about 8 inches thick, and the lower part is brown sandy clay loam about 20 inches thick. The underlying material is brown very channery sandy clay loam about 24 inches thick. Fractured sandstone is at a depth of 52 inches. Permeability of the Rhone soil is moderate, and available water capacity is moderate to high. Effective rooting depth is 40 to 60 inches. Surface runoff is slow, and the erosion hazard is slight.

Environmental Consequences of the Proposed Action: Increased truck traffic will cause rutting to develop over portions of the roadway. Rut development will channelize surface water down the roadway accelerating erosion rates. Heavy truck traffic on the road way will also increase soil compaction resulting in erosive overland flows.

Rio Blanco County soil # 36 covers a majority of the roadway in sections 1 and 12 (T4S, R95W) and is highly calcareous. If drainage relief structures are not properly maintained along these sections, piping and mass wasting may occur due to the dissolution of calcium carbonate.

Environmental Consequences of the No Action Alternative: No right-of-way would be issued and heavy truck traffic would not be permitted. Rut development would be less extensive and erosion rates would be subdued. Piping and mass wasting will occur (to a lesser extent) without proper maintenance/mitigation.

Mitigation: As identified in EA CO-140-2002-0083-EA / CO-WRFO-03-031-EA portions of BLM road # 1002 need to be upgraded in order to minimize rutting and stabilize cut and fill slopes adjacent to stream channels. All road construction must strictly adhere to "Gold Book" surface operating standards for oil and gas exploration and development. Drain dips will

be used in place of CMPs on slopes less than 10%. At locations fragile soils are encountered along the access way, an engineered construction/reclamation plan must be submitted and approved by the Field Manager before any construction will be permitted. Seed mix #2 will be used on fill slopes to enhance stabilization. Any upgrades or damage to the existing right-of-way will be upgraded or repaired at the expense of the operator.

Finding on the Public Land Health Standard for upland soils: Portions of the access road will cross fragile soils (CSU-1). Without a properly upgraded access road and constant maintenance the health of upland soils will be adversely impacted. Accelerated erosion will be a product of reduced permeability and infiltration rates due to soil compaction. With mitigation, the standards will be met.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The predominate vegetation type along the BLM portion of the road is a Wyoming big sagebrush type. Predominate species include Wyoming big sagebrush, rabbitbrush, western wheatgrass and a variety of forb species.

Environmental Consequences of the Proposed Action: There would be no change in the vegetation community as a result of the proposed action.

Environmental Consequences of the No Action Alternative: No change.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial)*:* The plant communities along the right-of-way meet the standards for public land health.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: Cow Creek was reputed to have supported a trout fishery in the early 1900's. Although the recent appearance of a small speckled dace population in Cow Creek's headwaters suggests that recovery is plausible, the lower reaches of this system associated with the proposed action are intermittent and presently supports little aquatic life besides a depauperate and seasonal invertebrate community.

Environmental Consequences of the Proposed Action: The consequences of authorizing increased industrial use of the Cow Creek road, as conditioned, would have less direct influence on channel functions (and its potential future support of aquatic communities in lower West Branch or mainstem Cow Creek) than the indirect influences of more routine, timely, and effective application of road maintenance and bank stabilization practices. With the sharing of BLM's road maintenance responsibilities, effective slope stabilization at and downstream of the confluence of West Branch and mainstem Cow Creek might be realized in the short term.

Persistent sloughing of shale material into the channel would be largely abated, and channel instability associated with excessive sediment deposition and bed movement would decrease—features that would tend to complement channel recovery processes.

Environmental Consequences of the No Action Alternative: Although the benefits attending effective road maintenance could be achieved through BLM's programs, changing priorities and shrinking budgets have stalled resolution of key road maintenance problems to date. Although increased industrial use would not be authorized under this alternative, channel-related effects associated with sediment deposition in Cow Creek would likely persist for extended periods of time.

Mitigation: See WETLANDS AND RIPARIAN ZONES section above.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): The public land health standards, as applied to Cow Creek, are not evaluated in the context of its historic character. At the present time, the riparian and wetland communities that support Cow Creek's aquatic functions are variously in non-functioning and functioning-at-risk categories. The lower intermittent reaches associated with the proposed action are incapable of supporting an aquatic community of any consequence, but is in an upward trend and ostensibly meets the land health standard. A livestock grazing permit renewal, that substantially revised the Cow Creek allotment's grazing regimen, was instituted last year and is expected to initiate a prominent upward trend in the development of riparian vegetation and improving channel function allotment-wide. As conditioned, it is possible that a sharing of BLM's road maintenance and improvement responsibilities with an industrial entity would be a more reliable means of effecting stabilization of steep shale slopes that contribute to excessive sediment deposition in lower Cow Creek and would complement continued improvements in channel function and meeting of the land health standard for aquatic communities in the future.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The project area is encompassed entirely by big game summer range that is considered critical habitat in Game Management Unit 22 by the Colorado Division of Wildlife (CDOW). Big game use tends to be stratified, with predominantly early spring and late fall/early winter use on those BLM-administered areas in lower Cow Creek and summer/fall use best associated with the divide. Big game use of the immediate access corridor as a source of forage and cover is minor due to consistent vehicle use during the periods of occupation. Although cottonwood, pinyon-juniper woodlands, aspen, and Douglas-fir trees in close proximity to the Cow Creek road offer suitable substrate for woodland raptor nesting, similar to the situation above, it would be very unlikely that a raptor would establish a nest in the affected road corridor.

Environmental Consequences of the Proposed Action: Although the frequency, volume, and duration of vehicle use would be elevated under the proposed action, its contribution relative to current levels and patterns of use, including active promotion of vehicle-based recreation use

of the Roan Plateau, is not expected to be substantive in terms of habitat utility for terrestrial wildlife. Although gas development-related traffic would increase sharply during drilling and completion operations, this activity would be near term. Long term production-phase traffic would be expected to represent relatively minor contributions to current and future expected recreational traffic levels. The impacts presently imposed on this corridor via unrestricted vehicle-use (e.g., avoidance-related disuse of adjacent forage and cover resources, elevated energy demands from heightened alert and flight) are ongoing and seasonally heavy, and although the road bisects critical summer range habitats throughout its length—this route is the shortest and most expedient means of transporting equipment and personnel through lands administered by the WRFO.

There is virtually no likelihood that traffic activity associated with the proposed action would have any influence on raptor nesting activity.

Environmental Consequences of the No Action Alternative: In the event alternate access options are selected, the only practical alternative for access to the Roan Plateau would appear to be Sprague Gulch. This would bypass only that portion of Cow Creek and would continue to use the segment of road on the divide. This alternative would entail shunting energy-related travel across 9.1 miles of additional critical big game summer range and 7.4 miles of elk winter concentration area. There would be no apparent advantage to selecting an alternate access route to the Roan Plateau in the context of wildlife resources.

Mitigation: None.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): The land health standard for terrestrial animal communities is presently being met. This action, as conditioned, would help move energy-development equipment and personnel as efficiently as possible through lands administered by the White River Field Office, thereby reducing the intensity of road and traffic-related influences on, particularly, big game resources in Game Management Unit 22, thereby complementing continued meeting of the land health standard. The no-action alternative, while not specifically authorizing any land use, would likely involve the selection of an alternate access route to the Roan Plateau. This presumed route would have no ameliorating effect on current traffic-related influences on the Cow Creek road, but would substantially increase traffic across Piceance Basin's big game critical summer range and an elk winter concentration area—an effect that would, especially in the short term, contribute to the deterioration of landscape-level habitat utility counter to the intent and direction of the land health standard.

OTHER NON-CRITICAL ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation			X

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Cadastral Survey	X		
Fire Management	X		
Forest Management	X		
Geology and Minerals	X		
Hydrology/Water Rights		X	
Law Enforcement		X	
Noise		X	
Paleontology			X
Rangeland Management		X	
Realty Authorizations			X
Recreation			X
Socio-Economics		X	
Visual Resources		X	
Wild Horses	X		

ACCESS AND TRANSPORTATION

Affected Environment: The Cow Creek Road is BLM Road 1002. It is maintained annually, as it is the primary access route for the Roan Plateau, a very popular hunting and camping destination. Although no hard vehicle counts exist, field observations by the GSFO and WRFO have indicated continual yearly increases in visitation during the summer and significant increases in use during the archery/muzzleloader seasons and the 2nd & 3rd big game rifle seasons. Interest created by the BLM Roan Plateau planning process alone has generated thousands of visits.

Environmental Consequences of the Proposed Action: Due to the increase volume of new industry related traffic (approximately 822 separate trips) on the proposed right-of-way, congestion may evolve during high use recreation periods (such as fall hunting seasons). With this increase in congestion, it could be suggested that an increase in vehicular accidents along the proposed right-of-way may occur.

Environmental Consequences of the No Action Alternative: None.

Mitigation: Avoid utilizing or minimize, if possible, opening days and 2 days preceding archery season, 2nd and 3rd big game rifle seasons and holiday weekends. (July 1st-4th, August 25th-27th, September 3rd-5th, October 20th-22nd and November 3rd-5th).

PALEONTOLOGY

Affected Environment: The proposed road right-of-way is located in areas mapped as the Uinta Formation with outcrops of the Parachute Creek Member of the Green River Formation

possible on some of the slope areas, particularly in Cow Creek and along the Book Cliffs (Tweto 1979). The BLM has classified both formations as Condition I formations, meaning that they are known to produce fossils of scientific interest and importance.

The BLM currently has no paleontological inventory data for any segments of the road.

Environmental Consequences of the Proposed Action: It is possible that fossils exposed at the surface of the proposed road route, particularly in those sections in Township 5 South and Range 94 West will be adversely impacted by the proposed action. Impacts from the extensive truck traffic include crushing of fossils exposed in the road way. Any maintenance work could potentially displace exposed fossils as blades from bulldozers and graders push soils and rock out of the original deposition location to maintain a passable surface for the road.

Dust abatement measures may or may not reduce impacts to fossil resources. Simply sprinkling water or magnesium chloride on the road only contributes to the traffic in the road and increases the potential for crushing of fossils at the surface. Graveling the road surface, while it may actually increase crushing of fossils initially could prove beneficial in that a sufficiently thick layer of road base material would shield the fossils from maintenance work and further crushing due to truck traffic or maintenance by bulldozers or road graders.

If the BLM should determine that it is necessary to upgrade portions of the road to make curves wider and safer for traffic there is an increased potential to impact fossil resources in the construction areas.

Environmental Consequences of the No Action Alternative: Under the No Action Alternative the impacts from heavy truck traffic, and the large vehicles involved would not occur. However, impacts to fossil resources from casual use or permitted right-of-way activity would continue at the present rate, which is currently un-documented due to lack of inventory and monitoring data.

Mitigation: 1. If paleontological materials (fossils) are uncovered during project activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological site damage.

2. If, for any reason, the BLM or Williams determines that portions of the road need to be upgraded for safety or accessibility that portion of the road to be upgraded must be inventoried by an approved paleontologist with a report submitted to the BLM with the results of the examination and any recommended mitigation prior to the initiation of construction.

REALTY AUTHORIZATIONS

Affected Environment: In June of 1972, the Cow Creek and Divide Roads, as well as several other roads in the general area, were noted to the public land records under the principles of 44 LD 513 (serial number COC15824). Prior to the passage of the Federal Land Policy and

Management Act, and the statutory authority it gives the BLM to reserve federal rights-of-way, such notations were made in order to appropriate public land for right-of-way purposes to protect facilities in which the federal government had, or would be investing federal funds.

In 1986, lands in Garfield County that are crossed by the Cow Creek Road were patented under the 1872 Mining Law (oil shale patents). While the intent of the 44 LD 513 notation was to appropriate the land for protection of the federal investment in such cases, the mining claims were located in 1918, and an appropriation under 44 LD 513 may not be valid. This land is now owned by EnCana, and Williams has made arrangements with them to cross.

The Bureau of Land Management is the holder of an easement for those sections of the Cow creek Road crossing private lands identified in the Background/Introduction section above.

Environmental Consequences of the Proposed Action: The issuance of a right-of-way for oil and gas development will increase the traffic load for the Cow Creek road with heavy truck traffic associated with drilling activities. Except as noted above, the Cow Creek Road is not currently encumbered by rights-of-way issued to other entities that could be affected by the proposed action.

Environmental Consequences of the No Action Alternative: Under the no action alternative potential improvements would be forgone pending future funding, if any. Increased use of the road for energy development purposes would not occur.

Mitigation: Stipulations found in the BLM Manual H-2801-1 will be applied to the right-of-way grant.

RECREATION

Affected Environment: The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

The proposed access route and vicinity has been delineated a Recreation Opportunity Spectrum (ROS) class of Semi-Primitive Motorized (SPM). SPM physical and social recreation setting is typically characterized by a natural appearing environment with few administrative controls, low interaction between users but evidence of other users may be present. SPM recreation experience is characterized by a high probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk.

Environmental Consequences of the Proposed Action: An increase in traffic is expected, increasing the likihood of human interactions, the sights and sounds associated with the human environment and a less naturally appearing environment which will detract from the experiences associated with SPM and the corridor area will likely more resemble the Roaded Natural (RN) end of the ROS. It is likely that hundreds or thousands of visitors to the Roan Plateau will have

their desired experience outcomes not met and may experience disbenifits such as increased stress due to traffic volume.

Environmental Consequences of the No Action Alternative: No impact to the desired experiences of the recreating public.

Mitigation: None.

CUMULATIVE IMPACTS SUMMARY: Issuance of the applied-for right-of-way would increase the use of the Cow Creek access road, and allow for the increased use of the Divide and Rim Roads as well. Little new construction would take place, however this would result in beneficial impacts: erosional processes would be abated, and public safety related to the character of the road would be improved. The safety benefit may be offset somewhat by the increased volumes of traffic, and the size of some of the related vehicles. However, the long term impacts would be beneficial.

Cumulative impacts in the vicinity of the Cow Creek Road would be minimal: the road is bladed annually, and commercial uses have taken place in the past. However, authorizing commercial uses on this road would lead to increased levels of commercial use on the Rim Road within the Roan Plateau Planning Area. While the visibility of current activities on the former NOSR has been relatively low, the resultant increased use of the Rim Road may cause an increase in the visibility of activities, e.g. from increased fugitive dust, sufficient to be seen from viewpoints along Interstate 70 and State Highway 13. However, impacts would be localized. Dust related impacts would be minimized by planned dust abatement activities, and long term effects to air quality would not be anticipated.

Considering the fact that the roads involved are existing roads, and that mitigation measures would be implemented to reduce and/or eliminate impacts, adverse cumulative impacts to sensitive/protected species, soils, watersheds, riparian areas, cultural resources, wildlife, water quality, vegetation, and other resource values would not be anticipated. Given the steep topography surrounding this area, and the condition of existing private access routes to the area, use of an alternate route across private lands would undoubtedly require significant construction. By utilizing an existing system of roads, cumulative impacts related to extensive private road construction may be averted.

According to Colorado Oil and Gas Conservation Commission (COGCC) data available on the internet, seven fee wells were drilled in the vicinity of the private locations on which Williams plans to drill between 1989 and 1991. Five of these wells are currently producing. In addition to four to nine wells Williams currently plans, Chevron has a permit from the COGCC to drill one well in this same area. Based on average disturbance from oil and gas activities in the area, approximately twenty one acres have been disturbed in the past, and an additional disturbance of approximately twenty nine acres may be anticipated if all planned wells are developed. There are approximately eight sections of private lands/minerals in this particular block (which lies on the edge of a larger block of private lands). Total well density from past and planned future activities would be approximately two wells per section (320 acre spacing). Since minimal

federal acreage is currently leased in the area, and since leasing decisions have not been made for the rest of the federal lands within the Roan Plateau Planning Area, it is not known to what extent this system of roads may be utilized for drilling on federal lands in the future. However, the planning process, and not the proposed use of the Cow Creek Road, and subsequently the Rim Road, to access private mineral interests will determine whether or not federal leases are issued and therefore the extent to which federal wells may be drilled. Any related cumulative impacts would be addressed in the Draft Resource Management Plan Amendment and Environmental Impact Statement (November, 2004).

REFERENCES CITED:

Conner, Carl E.

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1982 Predictive modeling (sic) in the Piceance Basin, Northwestern Colorado. Gilbert/Commonwealth, Englewood, Colorado.

Tweto, Odgen

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

PERSONS / AGENCIES CONSULTED:

The State of Colorado Department of Natural Resources
The Colorado Oil and Gas Conservation Commission
The Glenwood Springs Field Office, BLM

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Nate Dieterich	Hydrologist	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Michael Selle	Archaeologist	Cultural Resources Paleontological Resources
Robert Fowler	Forester	Invasive, Non-Native Species
Ed Hollowed	Wildlife Biologist	Migratory Birds
Ed Hollowed	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species
Bo Brown	Hazmat Collateral	Wastes, Hazardous or Solid
Nate Dieterich	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Ed Hollowed	Wildlife Biologist	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Nate Dieterich	Hydrologist	Soils
Robert Fowler	Forester	Vegetation
Ed Hollowed	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Robert Fowler	Forester	Rangeland Management
Penny Brown	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Keith Whitaker	Natural Resource Specialist	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

Finding of No Significant Impact/Decision Record (FONSI/DR)

CO-110-2005-110-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:

The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION/RATIONALE:

It is my decision to issue right-of-way COC68630 to Williams, for use, repair, and maintenance of the Cow Creek Road, and segments of the Divide Road (BLM Roads 1002 and 1000, respectively) as proposed, subject to the mitigation measures listed below. The right-of-way will be approximately 32,400 in length by 40 feet in width, crossing the following described public lands (and interest in lands):

Sixth Principal Meridian, Colorado

T. 4 S., R. 94 W.,
Sec. 33, E½SW¼SE¼, SE¼SE¼;
Sec. 34, NE¼NE¼SW¼, S½N½SW¼, S½SW¼, W½SE¼, SE¼SE¼.

T. 4 S., R. 95 W.,
Sec. 1, W½E½ (i.e. Lot 2, SW¼NE¼, W½SE¼)
Sec. 12, W½NE¼, SE¼NE¼, E½SE¼;
Sec. 13, E½NE¼, N½SE¼, SW¼SE¼;
Sec. 24, N½SW¼;
Sec. 36, W½E½, E½SW¼.

This includes the easement crossing the following described private lands:

Sixth Principal Meridian, Colorado

T. 4 S., R. 95 W.,
Sec. 1, W½NE¼ (i.e. Lot 2, SW¼NE¼)
Sec. 24, N½SW¼;
Sec. 36, NW¼NE¼, NW¼SW¼NE¼, N½SW¼SW¼NE¼.

The right-of-way will have a term of thirty years, and the payment of fair market rental will be required.

Use of the Cow Creek Road for commercial purposes has been authorized in the past, and is in conformance with the White River ROD/RMP. Use of the Rim Road under existing right-of-way COC63149 would not be inconsistent with any of the alternatives being considered in the Draft Resource Management Plan Amendment and Environmental Impact Statement (November, 2004) for the Roan Plateau Planning Area.

Section 501(a) (6) of the Federal Land Policy and Management Act of 1976 (FLPMA) authorizes the granting of rights-of-way for access roads crossing public lands. Section 103 (e) of FLPMA defines public lands as any land or interest in land owned by the United States and administered by the BLM. The granting of the proposed right-of-way is in conformance with the White River ROD/RMP.

MITIGATION MEASURES:

1. The operator will be responsible for complying with all local, state, and federal air quality regulations as well as providing documentation to the BLM that they have done so. To minimize production of fugitive dust, vehicle speeds must not exceed 15 mph. In addition, the application of a dust suppressant (e.g. water or "Dust Stop") will be required during dry periods. Any stockpiled soils associated with road repair or upgrading must be covered.

2. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

3. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

4. Any realignment or upgrading of the road outside of current disturbance or those areas with recent inventory data (Note: CU data is not considered adequate data) must be inventoried by an approved consulting archaeologist and a report detailing the results of the inventory must be submitted to and approved by the BLM prior to any construction work on BLM administered lands.

5. The permit holder is responsible for maintaining the current conditions within their right-of-way by annual control of noxious weeds. Use of herbicides will be in accordance with the label and be approved by the authorized officer.

6. The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

7. The operator will be responsible for complying with all local, state, and federal water quality regulations and provide documentation to the BLM that they have done so.

8. Portions of BLM road # 1002 must be upgraded in attempts to minimize rutting and stabilize fill slopes introducing sediment to the stream. All upgrades must strictly adhere to "Gold Book" surface operating standards for oil and gas exploration and development. Corrugated Metal Pipes (CMPs) will NOT be used as drainage relief structures on slopes less than 10%. Based on the nature of the affected soils, drain dips will be utilized in place of CMPs in these locations. Any upgrades or damage to the existing ROW will be upgraded or repaired at the expense of the operator.

9. Installation of engineered wall structures along the eastern bank of Cow Creek will be required to protect the road from erosion and undercutting in two locations (see Attachment 1). Additional sites shown as riprap installation on the project map (Attachment 1) will require placement of large rocks. To ensure stream bank/channel stability, an engineered designed of the low water crossing shall be submitted to this office, approved by the authorized officer and constructed prior to use by heavy trucks.

10. Special care will be given to stabilizing cut and fill slopes adjacent stream channels in attempts to minimize sediment loads. Portions of the roadway contacting fragile soils or showing signs of accelerated erosion will be fitted with the appropriate stabilization measures (e.g. silt fences, jute netting, and drain dips). The use of rip-rap adjacent to stream channels for bank stabilization purposes will be used sparingly *or* as appropriate to allow natural channel/bank development and complement channel stability (e.g., avoid adverse changes in channel gradient/sinuosity). Fill slopes will be promptly revegetated with the seed mix #2 to provide long term stabilization.

11. Portions of BLM road # 1002 must be upgraded in attempts to minimize rutting and stabilize cut and fill slopes adjacent to stream channels. All road construction must strictly adhere to "Gold Book" surface operating standards for oil and gas exploration and development. Drain dips will be used in place of CMPs on slopes less than 10%. At locations fragile soils are encountered along the access way, an engineered construction/reclamation plan must be submitted and approved by the Area Manager before any construction will be permitted. Seed mix #2 will be used on fill slopes to enhance stabilization. Any upgrades or damage to the existing right-of-way will be upgraded or repaired at the expense of the operator.

12. Avoid utilizing or minimize, if possible, opening days and 2 days preceding archery season, 2nd and 3rd big game rifle seasons and holiday weekends. (July 1st-4th, August 25th-27th, September 3rd-5th, October 20th-22nd and November 3rd-5th).

13. Prior to implementation, proponent-proposed slope stabilization and road maintenance plans (see WATER QUALITY, SURFACE AND GROUND section) must be evaluated by White River Field Office staff selected by the Authorized Officer to ensure that the specific work plans are consistent with channel and riparian recovery objectives developed in the White River ROD/RMP and BLM's land health standards. Stabilization/maintenance methods and their application would be subject to the approval of the WRFO Authorized Officer.

14. If paleontological materials (fossils) are uncovered during project activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological site damage.

15. If, for any reason, the BLM determines that portions of the road need to be upgraded for safety or accessibility that portion of the road to be upgraded must be inventoried by an approved paleontologist with a report submitted to the BLM with the results of the examination and any recommended mitigation prior to the initiation of construction.

16. Stipulations found in the BLM Manual H-2801-1 will be applied to the right-of-way grant.

COMPLIANCE/MONITORING: Compliance will be conducted by the realty staff at a minimum of every five years.

NAME OF PREPARER: Penny Brown

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL: _____
Acting Field Manager

DATE SIGNED: 7/20/05

ATTACHMENTS:

Attachment 1 - Proposed Road Improvements from previous EA
Attachment 2 - Location map of the proposed action
Attachment 3 - EA
Attachment 4 - Easement to Game Fish and Parks Commission
Attachment 5 – Solicitor's Opinion dated 1/12/76
Attachment 6 – August 26, 1985 Letter from DOW to BLM District Manager
Attachment 7 – April 20, 1989 Easement from State of Colorado to the United States